UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/591,627	09/05/2006	Franz Schwendemann	15407.0001USWO	3314

23552 7590 05/26/2010

MERCHANT & GOULD PC
P.O. BOX 2903
MINNEAPOLIS, MN 55402-0903

EXAMINER	
YABUT, DANIEL D	
ART UNIT	PAPER NUMBER
3656	

MAIL DATE	DELIVERY MODE
05/26/2010	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/591,627	SCHWENDEMANN, FRANZ	
	Examiner	Art Unit	
	DANIEL YABUT	3656	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *14 January 2010*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *14-18 and 20-31* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *14-18 and 20-31* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *1/14/2010*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. **Claim 14-18, and 20-31 are rejected** under 35 U.S.C. 102(b) as being anticipated by Frey et al., US PB Publication 2004/0012280 in view of Andrews, US Patent 3,842,877.

Frey et al. discloses a rotary drive (see at least Fig. 1) that adjust a moving part in a motor vehicle (para. [003]/ L1-5) comprising a(n):

Re claim 14

- Rotor (6) positioned with bearings (see bearings near 6 and 14 in Fig. 1) in a housing (Fig. 1) the housing defining a bore

However, as to **claim 14**, Frey et al. does **not** expressly disclose the housing does not define recesses that radially extend from a circumference of the bore, the circumference of the bore being defined by non-recessed portions of the bore and a plurality of crosspieces.

Andrews teaches the use of the housing (at 19) defining recesses (22) that radially extend from a circumference of the bore (Fig. 2), the circumference of the bore being defined by non-recessed portions (21) of the bore and a plurality of crosspieces on the supporting member (14) for the purpose of allowing the supporting member to be inserted at a desirable depth before engaging it into position (C1 / L5-10, 49-55).

Regarding **claim 14**, it would have been obvious to one having ordinary skill in the art at the time of the invention to provide the housing does not define recesses that radially extend from a circumference of the bore, the circumference of the bore being defined by non-recessed portions of the bore and a plurality of crosspieces, as taught by Andrews, in the device of Frey et al. for the purpose of allowing the supporting member to be inserted at a desirable depth before engaging it into position.

Frey et al. as modified above further discloses the following:

Re claim 14 (cont'd)

- Supporting member (A; see Figure Y below) that provides an axial force to support the rotor, the supporting member including a(n):
    - Base having a longitudinal axis (near F; Fig. Y below)
    - Plurality of individual crosspieces (see paragraph [0029], lines 8-10), each crosspiece:
        - Extending to a cutting edge (at 14; Andrews) in a direction perpendicular to the longitudinal axis of the base (Fig. Z below)
        - Having a shape that corresponds to one of the recesses of the housing such that the crosspieces axially insert within the recesses without turning (C2 / L50-58; Andrews).
        - Extending a distance from the base so as to overlap the non-recessed portions the bore (Fig. 2; Andrews), wherein the cutting edge of the crosspieces cut into the non-recessed portions of the bore when the support member is turned relative to the housing. ***Note:*** *Frey discloses*

the supporting member as a set screw with an external thread, see paragraph [0029], lines 8-10, which is commonly known in the art to be capable of turning into a housing and creating chamfers as described in the specification.

Alternatively, regarding the above recitations regarding the cutting edge turning into a housing thereby creating chamfers, the MPEP states, "[E]ven though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process". As set forth in MPEP 2113, product by process claims are not limited to the manipulation of the recited steps, only the structure implied by the steps. Once a product appearing to be substantially the same or similar is found, a 35 USC 102/103 rejection may be made and the burden is shifted to applicant to show an unobvious difference. See MPEP 2113.

Re claim 15

- Base of the supporting member is cylindrically shaped (at A; see Figure Y below) , the cylindrically shaped base defining an outer circumference (near B; see Figure Y below)

Re claim 16

- Crosspieces being arranged in tangentially spaced intervals and extending over an angular range that consists of a fraction of the outer circumference (at 14 in Fig. 6; Andrews)

Re claim 17

- Crosspieces including two crosspieces lying radially opposed to each other and being curved, and are positioned around the outer circumference (at 14; Fig. 6; Andrews)

Re claim 18

- Crosspieces are arranged in several planes, which are axially spaced in intervals (see Figure Y below)

Re claim 20

- Non-recessed portions of the housing define an attachment area being manufactured from a softer material than that of the crosspieces (C4 / L45-51; Andrews).

Re claim 21

- Each of the cutting edges of the crosspieces having is a first cutting edge (near 35, 36; Fig. 2), wherein the crosspieces having a second edge with locking mechanisms (at 14 in Fig. 2; C3 / L9-13; Andrews)

Re claim 22

- Rotor has a front face with a radius (D; see Fig. Y below) that rests against a flat stop surface (E; see Fig. Y below) that is formed on the supporting member

Re claim 23

- Supporting member has a first end and a second end, the first end including a stop face that contacts the rotor (at E; Fig. Y below), the second having a form closed entrainment member (F; see Figure Y below; see paragraph [0029] lines 8-14)

Re claim 24

- The softer material including plastic, aluminum, magnesium or zinc (C4/ L60-63; Andrews)

Re claim 25

- Locking mechanisms include a ridge that grabs tightly into the housing when turning occurs against the direction of installation (at 14 in Fig. 2; C3 / L9-13; Andrews)

As to **claim 26**, Frey et al. discloses all of the claim limitations, see above, but does **not** expressly disclose the entrainment member being an inside polyhedron or cross slit that transfers a torque during the installation of the supporting member into the housing.

However, regarding **claim 26** it is deemed that the notch-like feature noted above includes the inside polyhedron or cross slit, both of which are old and well known in the art.

Alternatively, regarding **claim 26**, it would have been an obvious matter of design choice to one having ordinary skill in the art at the time of the invention for the entrainment member to have an inside polyhedron or cross slit which are old and well known in the art to enable a transfer of a torque to the supporting member during the installation of the supporting member into the housing for the purpose of facilitating installation (or removal) of the supporting member. Further, the use of a polyhedron and a cross slit for the purpose of transferring torque during installation was well known in the art by one of ordinary skill at the time of the invention.

Re claim 27

- Housing having a through hole and radial recesses that extend from a circumference of the through hole, the circumference being defined by non-recessed portions of the through hole (Fig. 2; Andrews)
- Rotor (6) positioned with bearings (see bearings near 6 and 14 in Fig. 1) in the housing (Fig. 1)
- Supporting member (34), which is attached via a form closure (at F; Fig.Y below) on the housing
- Supporting member (A; see Figure Y below) that provides an axial force to support the rotor having radial crosspieces (see paragraph [0029], lines 8-10) having a shape that is complementary to a shape of the recesses such that the crosspieces axially insert within the recesses during installation without turning (C2 / L50-58; Andrews).
- Radial crosspieces each having a cutting edge (near 36, 35; Andrews) extending in a direction perpendicular to a longitudinal axis of the supporting member (Fig. Z below), wherein the cutting edge is configured to cut into the non-recessed portion of the housing when the support member is turned relative to the housing. ***Note:*** *Regarding this limitation, please refer the above note regarding MPEP 2113.*

Re claim 28

- Supporting member includes a base (at F; Fig. Y below), and wherein the crosspieces are spaced apart from one another about an outer diameter of the base (Fig. 1; Andrews

Re claim 29

- Crosspieces include two curved crosspieces that oppose one another (Fig. 1; Andrews)

Re claim 30

- Crosspieces are located in different spaced-apart planes (Fig. 1; Andrews)

Re claim 31

- Supporting member is turned relative to the housing in a first direction when the cutting edges of the crosspieces cut into the non-recessed portions (see note regarding MPEP 2113 above), the crosspieces each having a locking mechanism that prevents rotation of the supporting member in a direction opposite the first direction (C3 / L9-13; C4 / L21-24)

Response to Arguments

Applicant's arguments filed 1/14/2010 have been fully considered but they are not persuasive.

In response to Applicant's argument that Andrews does not suggest cross-pieces extending to a cutting edge in a direction perpendicular to a longitudinal axis of a base of a supporting member, but rather that the cross-pieces in Andrews are threaded sectors having conventionally formed threads indicative of helical structure, Figure Z below illustrates the longitudinal axis (into the page) with a perpendicular P axis drawn there-through. Although the cross-pieces 14 in Andrews are of screw type, this feature does not preclude the cross-pieces 14 from meeting the claim limitation. Namely, the cross-pieces indeed extend to a cutting edge (see at least cutting edge at 14 lying on the perpendicular axis P in Fig. Z below) in a direction

perpendicular to the longitudinal axis of the base. As such, the claimed invention does not structurally distinguish over the cited art of record.

Appendix

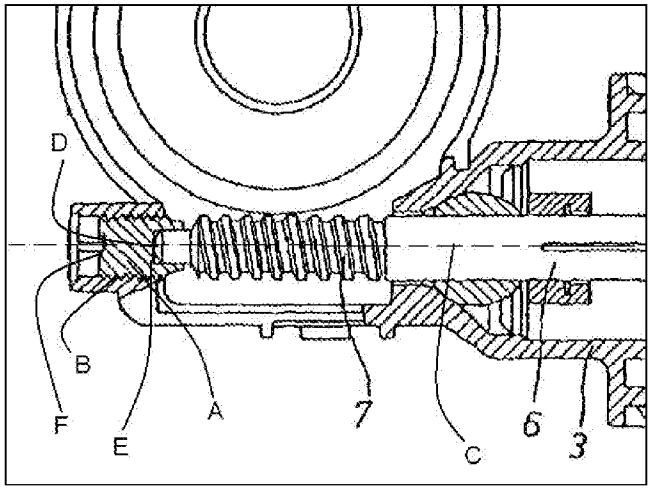

Figure Y: View of supporting member within rotor drive in the device of Frey et a

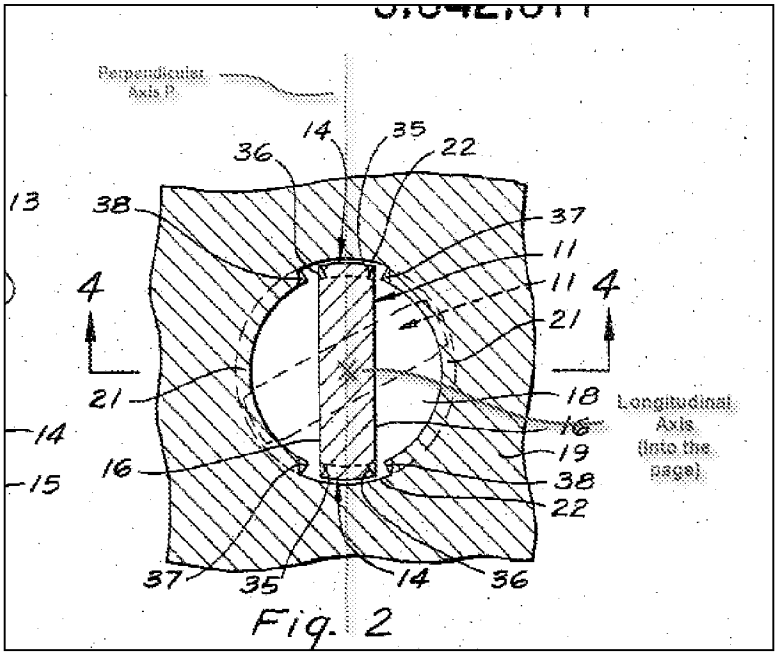

Figure Y: View of support the device of Andrews

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DANIEL YABUT whose telephone number is (571)270-5526. The examiner can normally be reached on Monday through Friday from 9:00 A.M. to 5:00 P.M. EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard W. Ridley can be reached on (571)272-6917. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/DANIEL YABUT/
Examiner, Art Unit 3656
5/7/2010

/Richard WL Ridley/
Supervisory Patent Examiner, Art Unit 3656